CLAIMS

I claim:

1. A system for marking a digital recording, wherein the digital recording includes a plurality of tracks, comprising:

a mechanism for dividing the digital recording into a plurality of sections and associating a random number with each section;

a mechanism for calculating an identifier as a function of the associated random numbers; and

a watermarking mechanism for watermarking sections within a block of sections, wherein the watermark for each section includes the random number associated with the section and a portion of the identifier.

2. The system of claim 1, wherein the digital recording includes a music recording, and the plurality of tracks include individual songs.

3. The system of claim 1, wherein a length of each section is less than a length of each track, and the number of sections is greater than the number of tracks.

4. The system of claim 1, wherein the identifier is a hash.

5. The system of claim 1, wherein the watermarking mechanism splits the identifier among the sections within the block.

6. A system for verifying a digital recording by ensuring a completeness of the digital recording, comprising:

a mechanism for reading watermarks from each of a plurality of sections on the digital recording and extracting a first and second part from each watermark;

a mechanism for calculating a first identifier as a function of the extracted first parts;

a mechanism for calculating a second identifier based on a subset of the second extracted parts; and

a mechanism for comparing the first identifier and the second identifier.

7. The system of claim 6, wherein the first part of each watermark is a random number.

8. The system of claim 7, wherein the second part of each watermark is a hash of a complete set of random numbers from an original copy of the digital recording.

9. The system of claim 6, further comprising a mechanism for terminating further processing of the digital recording if the first and second identifier do not match.

10. A program product stored on a recordable media for marking a digital recording having a plurality of tracks that, when executed, comprises:

means for assigning a value to each of a plurality of sections within the digital recording;

means for calculating an identifier as a function of all of the assigned values; and

means for determining a watermark for each section within a block of sections, wherein each watermark includes the value assigned to the section and a portion of the identifier.

11. The program product of claim 10, wherein each value is a random number.

12. The program product of claim 10, wherein the identifier is a hash.

13. The program product of claim 10, wherein the block of sections consists of one section and the portion of the identifier consists of the entire identifier.

14. A program product stored on a recordable media for verifying a digital recording that, when executed, comprises:

means for reading watermarks from each of a plurality of sections on the digital recording and extracting a first part and a second part from each watermark;

means for calculating a first identifier as a function of the extracted first parts;

means for calculating a second identifier based on a subset of the second extracted parts; and

means for comparing the first identifier and the second identifier.

15. The program product of claim 14, wherein the first part of each watermark is a random number.

16. The program product of claim 15, wherein the second part of each watermark is a hash of a complete set of random numbers from an original copy of the digital recording.

17. A method for preventing unauthorized use of a digital recording, wherein the digital recording includes a plurality of tracks, comprising:

encoding the digital recording with the steps of:

partitioning the digital recording into a plurality of sections;

generating a random number for each section;

calculating an identifier as a function of all of the generated random numbers;

splitting the identifier into m partitions, wherein m is an integer;

grouping the sections into blocks of m sections; and

watermarking each section in each block with the random number for the section and one of the m partitions.

18. The method of claim 17, further comprising:

verifying the digital recording with the steps of:

reading the watermark from each section;

extracting the random numbers from each section;

recalculating the identifier as the function of all of the extracted random numbers;

extracting each of the m partitions from a first block of sections;

coalescing the m partitions into a second identifier; and

comparing the recalculated identifier with the second identifier.

19. The method of claim 18, comprising the further step of terminating processing of the digital recording if the recalculated identifier does not match the second identifier.

20. The method of claim 17, wherein the identifier is a hash.

21. A watermarked digital recording, comprising:

a plurality of tracks; and

a plurality of sections commingled with the plurality of tracks, wherein each section includes a random value and a value that is dependent on the random values for all of the sections.